**Marked-up Set of Claims (According to 37 CFR 1.173(b)(2))**

1. (Four times amended) A method for dewatering thermophilic biological sludge[ that has been digested by a thermophilic digestion process], comprising:

a. adding [polymeric quaternary ammonium compounds, aluminum sulfate, ferric chloride and blends thereof as]a primary component[,] to the thermophilic biological sludge;

said primary component comprising at least one of aluminum sulfate and ferric chloride; wherein

said primary component may also comprise a polyquaternary ammonium compound; and

b. adding a cationic or anionic polyacrylamide to the thermophilic biological sludge[; such that any combinations of the primary component and of the polyacrylamides enhance dewatering of the sludge].

2. (Five times amended) The method for dewatering thermophilic biological sludge according to claim 1, wherein the polymeric quaternary ammonium compound[s are from] is of the di-allyl di-methyl ammonium chloride (DADMAC) [family]variety.

3. (Five times amended) The method for dewatering thermophilic biological sludge according to claim 1, wherein the polymeric quaternary ammonium compound[s are from] is of the epichlorohydrin di-methyl amine (epi-DMA) [family]variety.

4. (Three times amended) The method for dewatering thermophilic biological sludge according to claim 1, wherein [the polymeric quaternary ammonium compound, aluminum sulfate, ferric chloride and blends thereof are]said primary component is added directly to [the]said thermophilic biological sludge and, upon formation of microflocs of the sludge from [the polymeric quaternary ammonium compound, aluminum sulfate, ferric chloride and blends thereof]said primary component, said cationic polyacrylamide is added[ to form a floc that dewaters the sludge].

5. (Three times amended) The method for dewatering thermophilic biological sludge according to claim 1, wherein the ratio[s] of the polymeric quaternary ammonium compound[s] with respect to aluminum sulfate range from about 1:16 to about 1:2, by weight.

6. (Three times amended) The method for dewatering thermophilic biological sludge according to claim 1, wherein the ratio[s] of the polymeric quaternary ammonium compound[s] with respect to ferric chloride range from about 1:8 to about 1:10, by weight.

7. (Three times amended) The method for dewatering thermophilic biological sludge according to claim 1, wherein the ratio[s] of the polyacrylamide with respect to aluminum sulfate range from about 1:80 to about 1:8, by weight.

8. (Three times amended) The method for dewatering thermophilic biological sludge according to claim 1, wherein the ratio[s] of the polyacrylamide with respect to ferric chloride range from about 1:70 to about 1:7, by weight.

9. (Three times amended) The method for dewatering thermophilic biological sludge according to claim 1, wherein the polymer concentration to solids ratio of total polymer dosage requirement in relationship to percentage of solids component of [the]said thermophilic biological sludge is between about 50 ppm:1 percent and about 300 ppm:1 percent.

10. (Three times amended) The method for dewatering thermophilic biological sludge according to claim 1, wherein [the polymeric quaternary ammonium compound, aluminum sulfate, ferric chloride and blends thereof, are]said primary component is added directly to [the]said thermophilic biological sludge in an amount sufficient to cause formation of a cationic overcharge within a developed micro floc system, [and an]then said anionic polyacrylamide is added[for final floc formation].

11. (Four times amended) The method for dewatering thermophilic biological sludge according to claim 10, wherein [the polymeric quaternary ammonium compound]said primary component and [the]said anionic polyacrylamide are in an approximate[ly] 1:8 to 20:1 ratio by weight[with the anionic polyacrylamide having a higher molecular weight than the polymeric quaternary ammonium compound does].

12. (Twice amended) The method for dewatering thermophilic biological sludge according to claim 10, wherein the polymer concentration to solids ratio of total polymer dosage requirement in relationship to percentage of solids component of [the]said thermophilic biological sludge is between approximately 50 ppm:1 percent and approximately 5000 ppm:1 percent.

13. (Three times amended) The method for dewatering thermophilic biological sludge according to claim 1, wherein [the]said thermophilic biological sludge is mixed with primary sludge.

14. **Claim 14 was previously deleted; please cancel this claim.**

15. (Three times amended) The method for dewatering thermophilic biological sludge according to claim 1, wherein [the polymeric quaternary ammonium compounds, aluminum sulfate, ferric chloride and blends thereof, as well as the]said primary component and said polyacrylamide is used in solution, in emulsion or in dry form.

16. (Previously added) A sludge composition, comprising:
water;
solids comprising thermophiles;
aluminum sulfate; and
polyacrylamide.

17. (Previously added) A sludge composition, comprising:
water;

solids comprising thermophiles;
ferric chloride; and
polyacrylamide.

18. (Previously added) A sludge composition, comprising:
water;
solids comprising thermophiles;
aluminum sulfate and ferric chloride; and
polyacrylamide.

19. (Previously added and previously amended) The sludge of claim 16, 17 or 18, including a polyquaternary ammonium compound.

20. (Previously added and amended twice) The sludge of claim 19, wherein the polyquaternary ammonium compound is of the DADMAC variety and/or of the epi-DMA variety.

21. (Previously added and previously amended) The sludge of claim 16, 17 or 18, wherein said polyacrylamide is cationic or anionic.

**Claims 22 through 38 were previously cancelled.**

39. (Previously added) The sludge of claim 16, 17 or 18, further comprising primary sludge.

## Claim List – Status and Support of Current Amendment Changes

| Claim | Status | Type | Support for Current Changes |
|---|---|---|---|
| 1 | Pending | Method | There are no changes in this amendment. |
| 2 | Pending | Method | "family' has been changed to "variety." Support is found in the abstract, col. 1 lines 17-21 and col. 5 lines 7-10. |
| 3 | Pending | Method | "family' has been changed to "variety." Support is found in the abstract, col. 1 lines 17-21 and col. 5 lines 7-10. |
| 4 | Pending | Method | There are no changes in this amendment. |
| 5 | Pending | Method | There are no changes in this amendment. |
| 6 | Pending | Method | There are no changes in this amendment. |
| 7 | Pending | Method | There are no changes in this amendment. |
| 8 | Pending | Method | There are no changes in this amendment. |
| 9 | Pending | Method | The typographical error "350" has been changed to "300." |
| 10 | Pending | Method | There are no changes in this amendment. |
| 11 | Pending | Method | There are no changes in this amendment. |
| 12 | Pending | Method | There are no changes in this amendment. |
| 13 | Pending | Method | There are no changes in this amendment. |
| 14 | Cancelled | N/A | N/A |
| 15 | Pending | Method | There are no changes in this amendment. |
| 16 | Pending | Composition | There are no changes in this amendment. |
| 17 | Pending | Composition | There are no changes in this amendment. |
| 18 | Pending | Composition | There are no changes in this amendment. |
| 19 | Pending | Composition | There are no changes in this amendment. |
| 20 | Pending | Composition | "family of compounds" has been changed to "variety." Support is found in the abstract, col. 1 lines 17-21 and col. 5 lines 7-10. |
| 21 | Pending | Composition | There are no changes in this amendment. |
| 22-38 | Cancelled | N/A | N/A |
| 39 | Previously Added | Composition | There are no changes in this amendment. |